

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method of sequencing a plurality of candidate vehicles, wherein each candidate vehicle in said plurality of candidate vehicles is a candidate to be allocated the next place in a sequence after a first vehicle, said first vehicle being a vehicle that has most recently been allocated a place in said sequence, said method comprising the steps of:

- (i) receiving information pertaining to one of said candidate vehicles;
- (ii) calculating at least one a-value to be attributed to said candidate vehicle on the basis of said received information and information received from the candidate vehicle most recently allocated a place in said sequence;
- (iii) performing repeating steps (i) and (ii) in respect of for each other of said candidate vehicles;
- (iv) selecting one of said candidate vehicles based on said attributed values; and
- (v) allocating said selected candidate vehicle the next place in said sequence;

wherein the step of selecting one of said candidate vehicles comprises:
calculating a cost in respect of each of said candidate vehicles, the cost
calculated in respect of each candidate vehicle being dependent on each of the at least
one value attributed to that candidate vehicle;

performing a comparison of the cost calculated in respect of each candidate vehicle with costs calculated in respect of each of the other candidate vehicles; and selecting a candidate vehicle in dependence on said costs.

2. (Original) A method as claimed in claim 1, wherein said vehicles are aircraft.

3. (Original) A method as claimed in claim 2, wherein said sequence is the landing sequence.

4. (Previously Presented) A method as claimed in claim 1, wherein said received information is received from the candidate vehicle to which said received information pertains.

5. (Previously Presented) A method as claimed in claim 1, wherein said received information includes information relating to the size of the candidate vehicle to which said information pertains.

6. (Currently Amended) A method as claimed in claim 1, wherein said at least one of said values value is representative of the interval spacing that would have to be maintained between the candidate vehicle and the candidate vehicle most recently allocated a place in said sequence if said candidate vehicle were allocated the next place in the sequence.

7. (Currently Amended) A method as claimed in claim 1, wherein said at least one of said values value is representative of the delay that would be experienced by said candidate vehicle if said candidate vehicle was allocated the next place in the sequence.

Claims 8-12 (Canceled).

13. (Currently Amended) Sequencing apparatus arranged in operation to sequence a plurality of candidate vehicles, wherein each candidate vehicle in said plurality of candidate vehicles is a candidate to be allocated the next place in a sequence after a first vehicle, said first vehicle being a vehicle that has most recently been allocated a place in said sequence, said data processing apparatus comprising:

a receiver arranged in operation to receive information pertaining to one of said candidate vehicles;

a calculator arranged in operation to calculate at least one a-value to be attributed to each of said candidate vehicles on the basis of said received information and information received from the candidate vehicle most recently allocated a place in said sequence;

a selector arranged in operation to select one of said candidate vehicles based on said attributed values; and

an allocator arranged in operation to allocate said selected candidate vehicle the next place in said sequence; sequence.

wherein said selector is arranged in operation to calculate a cost in respect of each of said candidate vehicles, the cost calculated in respect of each candidate vehicle being dependent on each of the at least one value attributed to that candidate vehicle, then to perform a comparison of the cost calculated in respect of each candidate vehicle with costs calculated in respect of each of the other candidate vehicles, then to select a candidate vehicle in dependence on said costs.

14. (Currently Amended) Sequencing apparatus according to claim 13, wherein said vehicles are aircraft, aircraft.¹

15. (Original) Sequencing apparatus according to claim 14, wherein said sequence is the landing sequence.

16. (Previously Presented) A digital data carrier carrying a program of instructions executable by processing apparatus to perform the method steps as set out in claim 1.

17. (New) A method of sequencing a plurality of candidate vehicles, wherein each candidate vehicle in said plurality of candidate vehicles is a candidate to be allocated the next place in a sequence after a first vehicle, said first vehicle being a

vehicle that has most recently been allocated a place in said sequence, said method comprising the steps of:

- (i) receiving information pertaining to one of said candidate vehicles;
- (ii) calculating at least one value to be attributed to said candidate vehicle on the basis of said received information and information received from the vehicle most recently allocated a place in said sequence;
- (iii) performing steps (i) and (ii) in respect of each other of said candidate vehicles;
- (iv) selecting one of said candidate vehicles based on said attributed values; and
- (v) allocating said selected candidate vehicle the next place in said sequence; wherein the step of selecting one of said candidate vehicles comprises:
 - calculating a cost in respect of each of said candidate vehicles, the cost calculated in respect of each candidate vehicle being dependent on each of the at least one value attributed to that candidate vehicle;
 - calculating a relative cost in respect of each of said candidate vehicles, the relative cost for a candidate vehicle being dependent on the cost calculated in respect of that candidate vehicle and on the sum of the costs calculated in respect of each of the candidate vehicles; and
 - selecting a candidate vehicle in such a way that the probability of a particular candidate vehicle being selected is dependent on the relative cost calculated for that candidate vehicle.

18. (New) A method as claimed in claim 17, wherein said vehicles are aircraft.

19. (New) A method as claimed in claim 18, wherein said sequence is the landing sequence.

20. (New) A method as claimed in claim 17, wherein said received information is received from the candidate vehicle to which said received information pertains.

21. (New) A method as claimed in claim 17, wherein said received information includes information relating to the size of the candidate vehicle to which said information pertains.

22. (New) A method as claimed in claim 17, wherein said at least one of said values is representative of the interval that would have to be maintained between the candidate vehicle and the candidate vehicle most recently allocated a place in said sequence if said candidate vehicle were allocated the next place in the sequence.

23. (New) A method as claimed in claim 17, wherein said at least one of said values is representative of the delay that would be experienced by said candidate vehicle if said candidate vehicle was allocated the next place in the sequence.

24. (New) Sequencing apparatus arranged in operation to sequence a plurality of candidate vehicles, wherein each candidate vehicle in said plurality of candidate vehicles is a candidate to be allocated the next place in a sequence after a first vehicle, said first vehicle being a vehicle that has most recently been allocated a place in said sequence, said data processing apparatus comprising:

a receiver arranged in operation to receive information pertaining to one of said candidate vehicles;

a calculator arranged in operation to calculate at least one value to be attributed to each of said candidate vehicles on the basis of said received information and information received from the vehicle most recently allocated a place in said sequence;

a selector arranged in operation to select one of said candidate vehicles based on said attributed values; and

an allocator arranged in operation to allocate said selected candidate vehicle the next place in said sequence;

wherein said selector is arranged in operation to calculate a cost in respect of each of said candidate vehicles, the cost calculated in respect of each candidate vehicle being dependent on each of the at least one value attributed to that candidate vehicle, then to calculate a relative cost in respect of each of said candidate vehicles, the relative cost for a candidate vehicle being dependent on the cost calculated in respect of that candidate vehicle and as the sum of the costs calculated in respect of each of the candidate vehicles; then to select a candidate vehicle in such a way that the

probability of a particular candidate vehicle being selected is dependent on the relative cost calculated for that candidate vehicle.

25. (New) Sequencing apparatus according to claim 24, wherein said vehicles are aircraft.

26. (New) Sequencing apparatus according to claim 25, wherein said sequence is the landing sequence.

27. (New) A digital data carrier carrying a program of instructions executable by processing apparatus to perform the method steps as set out in claim 17.

28. (New) A method as claimed in claim 6, wherein the cost for a candidate vehicle is calculated in such a way that a lower interval results in calculation of a lower cost for that candidate vehicle.

29. (New) A method as claimed in claim 17, wherein the cost for a candidate vehicle is calculated in such a way that a lower interval results in calculation of a lower cost for that candidate vehicle.

30. (New) A method as claimed in claim 7, wherein the cost for a candidate vehicle is calculated in such a way that a higher delay results in calculation of a lower cost for that candidate vehicle.

31. (New) A method as claimed in claim 23, wherein the cost for a candidate vehicle is calculated in such a way that a higher delay results in calculation of a lower cost for that candidate vehicle.

32. (New) A method as claimed in claim 1 wherein the cost for a candidate vehicle is calculated according to a cost function

$$f(I, D) = \frac{I^\alpha}{D^\beta}$$

where I represents the interval that would have to be maintained between that candidate vehicle and the vehicle most recently allocated a place in said sequence if said candidate vehicle were allocated the next place in the sequence, and D represents the delay that would be experienced by that candidate vehicle if that candidate vehicle were allocated the next place in the sequence, and α and β are values.

33. (New) A method as claimed in claim 17 wherein the cost for a candidate vehicle is calculated according to a cost function

$$f(I, D) = \frac{I^\alpha}{D^\beta}$$

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where I represents the interval that would have to be maintained between that candidate vehicle and the vehicle most recently allocated a place in said sequence if said candidate vehicle were allocated the next place in the sequence, and D represents the delay that would be experienced by that candidate vehicle if that candidate vehicle were allocated the next place in the sequence, and α and β are values.